Snohomish County Comments
Ecology's Modifications to the Stormwater Management Manual for Western Washington

Document at Issue	Section, Page# and/or Paragraph#	Modified Language	Comment	Snohomish County Proposed Language
Stormwater Management Manual for Western Washington (SWMMWW) Volume I	Sec. 2.2 p. 2-3 6th para.	"The following pavement maintenance practices are not categorically exempt. The extent to which the manual applies is explained for each circumstance."	The three pavement activities are within the road prism/footprint and all three should be considered as redevelopment.	Revise as follows: "The following pavement maintenance practices are not categorically exempt. They are considered redevelopment. The extent to which the manual applies is explained for each circumstance."
SWMMWW Volume I	Sec. 2.4 (paragraphs 2 & 3) p. 2-9	"The Minimum Requirements must be determined at the time of the permit application."	The MRs won't be determined until the application review process occurs, which may be several weeks after the application has been submitted and then determined to be complete.	Revise as follows: "The Minimum Requirements must be determined during the permit application review process."
SWMMWW Volume I	Appendix G, pp. G-6, 7, 8 & 9		The definitions of "Commercial Agriculture" and "Converted Vegetation (Areas)" are double-listed.	Remove from pp. G-6 & 7.
SWMMWW Volume I	Appendix G, p. G-9	"Conveyance System: The drainage facilities, both natural and man-made, which collect, contain, and provide for the flow of surface and stormwater from the highest points on the land down to a receiving water. The natural elements of the conveyance system include swales and small drainage courses, streams, rivers, lakes, and wetlands. The human-made elements of the conveyance system include gutters, ditches, pipes, channels, and most retention/detention facilities."	The definition should be made consistent with Ecology's revision to the definition in the Phase I Permit.	Use the modified definition of "conveyance system" as set forth in the Phase I Permit, p. 70 (redline).
SWMMWW Volume I	Appendix G, p. G-19	"Freeboard – The vertical distance between the highest designed water surface elevation and the elevation of the crest of the facility."	Ecology proposes to modify the definition of "freeboard" to include reference to "the crest of the facility." Please define "crest."	Either provide a figure, as is done for "threshold discharge area," or show location of crest in figure 3.2.2 "Typical Detention Pond Sections" – and provide reference to the figure in the definition of freeboard.
SWMMWW Volume III	Appendix III-B, p. B-4, para. 10	User is directed to investigate soil conditions and input acres of outwash (A/B), till (C/D), and saturated/wetland soils.	WWHM doesn't offer "D" soils; it only offers saturated soils for "Forest, Flat."	Direct the user to input number of acres of outwash (A/B), till (C), and saturated/ wetland soils for the site conditions. Delete the reference to "D" soils.

SWMMWW Volume III	Appendix III-C, p. C-6 & C-7	Added text concerning "Facilities with an underdrain"	Whether or not a bioretention facility has an underdrain, the modeled infiltration rate should match the rate of the media, not the function of the media (i.e. there should be only one model run). The properties of the media are fixed and do not change depending on the intended function of the media. Two infiltration rates are given (1.5 or 3 in/hr) with a reference to a section in Chapter 7, Volume V. Checking that section, the 1.5 or 3 in/hr rate info is deleted and replaced by 6 in/hr. So what is the right data to use?	Provide acceptable infiltration rates for the media, and performance measures for the functions. Clarify the rate inconsistencies.
SWMMWW Volume IV	Chapter 2, BMP S411, p. 2-24	"Do not spray pesticides within 100 feet of open waters including wetlands, ponds, and rivers, streams, creeks, sloughs and any drainage ditch or channel that leads to open water. Such activities may require a permit from Ecology. The local jurisdiction may also have requirements for these activities. It may be necessary to use aquatic labeled pesticides in order to comply with label requirements. Flag all sensitive areas including wells, creeks, and wetlands prior to spraying."	This requirement is unclear, self-contradictory, and unnecessarily creates an additional layer of regulation over pesticide use for which the County would be responsible to enforce. Pesticide use is adequately regulated by various federal and state laws. Modify the requirement as shown.	Revise as follows: "The use of pesticides must be in accordance with all applicable regulations and manufacturers' requirements."
SWMMWW Volume V	Sec. 4.6 Maintenance Standards No. 21 (bioretention) No. 22 (permeable pavement)	Inspection frequencies for various components	Phase I NPDES Permit Special Condition S5.C.9.c sets forth inspection frequencies for stormwater BMPs, which include bioretention facilities and permeable pavement. The Volume V maintenance standards for all BMPs except bioretention and permeable pavement do not specify inspection frequencies, presumably in recognition of the requirements set forth in S5.C.9.c. The inspection frequencies set forth in Volume V for bioretention and permeable pavement are not needed, and in some cases conflict with Special Condition S5.C.9.c.	Delete all inspection frequency information from the maintenance standards in Section 4.6.
SWMMWW Volume V	Sec. 4.6 Maintenance Standards No. 21 (bioretention)	"Do not use pesticides or Bacillus thuringiensis israelensis (Bti)."	This requirement, which applies in the case of standing water, is unnecessarily restrictive. Pesticide use for mosquito control is allowed in other stormwater facilities, such as catch basins and detention ponds. Modify the requirement as shown.	Revise as follows: "The use of pesticides must be in accordance with all applicable regulations and manufacturers' requirements."
SWMMWW Volume V	BMP T5.11 and T5.12,	Runoff modeling guidance for dispersion BMPs.	Modeling guidance is confusing since there are no flow requirements for dispersion.	Please explain that the modeling guidance provides options based on site parameters.
SWMMWW Volume V	BMP T5.15, p. 5-25	Added text concerning "Underdrains"	The added text is confusing. The capacity of the system to detain water, and qualify as an LID BMP, is based on the outlet elevation of the underdrain system, not the elevation of the underdrain in the subgrade.	Revise wording for clarity. Consider including a figure to illustrate.

			The wording implies that deepening the aggregate base layer (to raise the underdrain within that layer) is a solution.	
SWMMWW Volume V	BMP T5.15 p. 5-28	A reference is made to a supporting document (Smith 2011)	This reference is not included in the reference list of this Volume.	Include/add reference in the reference list in Volume 5.
SWMMWW Volume V	BMP T7.30, pp. 7-17 to 7-19	Added text concerning specific gradation of compost	Commercially available compost may or may not meet these specific requirements. There should be some flexibility since there will be greater demand for soil amendments.	Provide flexibility by allowing the permittee to approve equivalent materials.
SWMMWW Volume V	BMP T7.30, p. 7-19	"Note that if an underdrain is used in a bioretention facility design, the bioretention facility is no longer considered an LID BMP and cannot be used to satisfy Minimum Requirement #5."	The capacity of the system to detain water, and qualify as an LID BMP, is based on the outlet elevation of the underdrain system, not the elevation of the underdrain in the subgrade.	Provide the ability to install underdrains as overflow systems, based on outlet elevations, and still satisfy MR #5.
SWMMWW Volume V	BMP T7.30, p. 7-20	Added text beginning "When using an underdrained bioretention facility, the model must be run twice. …"	Whether or not a bioretention facility has an underdrain, the modeled infiltration rate should match the rate of the media, not the function of the media (i.e. there should be only one model run). The properties of the media are fixed and do not change depending on the intended function of the media. Two infiltration rates are given (1.5 or 3 in/hr) with a reference to an earlier section. Checking that section, the 1.5 or 3 in/hr rate info is deleted and replaced by 6 in/hr. So what is the right data to use?	Provide acceptable infiltration rates for the media, and performance measures for the functions. Clarify the rate inconsistencies.